Please provide the following information, and submit to the NOAA DM Plan Repository.

# Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

# 1. General Description of Data to be Managed

# 1.1. Name of the Data, data collection Project, or data-producing Program:

2006-2008 PAMAP LiDAR Data of Pennsylvania (Northern Counties)

#### 1.2. Summary description of the data:

This dataset consists of classified LiDAR (Light Detection and Ranging) elevation points produced by the PAMAP Program.

PAMAP data are organized into blocks, which do not have gaps or overlaps, that represent 10,000 feet by 10,000 feet on the ground. The coordinate system for blocks in the northern half of the state is Pennsylvania State Plane North (datum:NAD83, units: feet); blocks in the southern half of the state are in Pennsylvania State Plane South. A block name is formed by concatenating the first four digits of the State Plane northing and easting defining the block's northwest corner, the State identifier "PA", and the State Plane zone designator "N" or "S" (e.g. 45001210PAS).

The following are the collection dates for each county chronologically from 2006-2008:

CLARION: 20060321 - 20060502

FOREST: 20060321 - 20060502

MERCER: 20060321 - 20060502

VENANGO: 20060321 - 20060502

LUZERNE: 20060406 - 20060429

CAMERON: 20060426 - 20060430

CENTRE: 20060426 - 20060430

CLEARFIELD: 20060426 - 20060430

JEFFERSON: 20060426 - 20060430

ELK: 20060426 - 20060430 & 20060321 - 20060502

CLINTON: 20070430

CRAWFORD: 20070430

ERIE: 20070430

**LACKAWANNA: 20070430** 

LYCOMING: 20070430

MCKEAN: 20070430

POTTER: 20070430

TIOGA: 20070430

UNION: 20070430

WARREN: 20070430

MONTOUR: 20080325 - 20080506

COLUMBIA: 20080325 - 20080506 & 20080410 - 20080419

NORTHUMBERLAND: 20080325 - 20080506 & 20080414 - 20080510

BRADFORD: 20080406 - 20080505

SULLIVAN: 20080406 - 20080505

WYOMING: 20080406 - 20080505

PIKE: 20080409 - 20080507

WAYNE: 20080409 - 20080507

SUSQUEHANNA: 20080409 - 20080507 & 20080406 - 20080505

CARBON: 20080430

MONROE: 20080430

# 1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

# 1.4. Actual or planned temporal coverage of the data:

2006-03-21 to 2008-05-10

# 1.5. Actual or planned geographic coverage of the data:

W: -80.575257, E: -74.663306, N: 42.290361, S: 40.601898

#### 1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

# 1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys,

enforcement activities, numerical model, etc.)

# 1.8. If data are from a NOAA Observing System of Record, indicate name of system:

# 1.8.1. If data are from another observing system, please specify:

# 2. Point of Contact for this Data Management Plan (author or maintainer)

#### 2.1. Name:

NOAA Office for Coastal Management (NOAA/OCM)

# 2.2. Title:

Metadata Contact

# 2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

#### 2.4. E-mail address:

coastal.info@noaa.gov

#### 2.5. Phone number:

(843) 740-1202

# 3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

# 3.1. Name:

#### 3.2. Title:

Data Steward

# 4. Resources

Programs must identify resources within their own budget for managing the data they produce.

- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management ( specify percentage or "unknown"):

# 5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

# 5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

**Process Steps:** 

- 2006-04-24 00:00:00 Horizontal and Vertical control points were acquired utilizing GPS collection techniques. All control was prepared under the supervision of licensed Professional Land Surveyors. | Source Produced: GPS Photo Control Survey
- 2007-03-08 00:00:00 LiDAR collection and processing generally adhered to FEMA Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix A: Guidance for Aerial Mapping & Surveying, Section A.8: Airborne Light Detection and Ranging (LiDAR) Surveys. Raw LiDAR data was collected using a sensor equipped with an airborne GPS/IMU system. Flight lines with a 30% sidelap were flown with a nominal average LiDAR point spacing of 1.4 meters using a 43 degree field of view (full angle) at a laser pulse rate of 40.6 kHz. In some areas, laser pulse rate/power were modified in order to achieve specified point spacing. As a result, these areas do not have more than 2 returns per pulse. The raw LiDAR data is processed and filtered to remove LiDAR points on elevated features such as vegetation, buildings, cars, etc. in order to create a bare earth surface meeting the accuracies required for orthophoto and contour generation. (Citation: LiDAR) - 2006-04-24 00:00:00 - Horizontal and Vertical control points were acquired utilizing GPS collection techniques. All control was prepared under the supervision of licensed Professional Land Surveyors. | Source Produced: GPS Photo Control Survey
- 2007-03-08 00:00:00 LiDAR collection and processing generally adhered to FEMA Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix A: Guidance for Aerial Mapping & Surveying, Section A.8: Airborne Light Detection and Ranging (LiDAR) Surveys. Raw LiDAR data was collected using a sensor equipped with an airborne GPS/IMU system. Flight lines with a 30% sidelap were flown with a nominal average LiDAR point spacing of 1.4 meters using a 43 degree field of view (full angle) at a laser pulse rate of 40.6 kHz. In some areas, laser pulse rate/power were modified in order to achieve specified point spacing. As a result, these areas do not have more than 2 returns per pulse. The raw LiDAR data is processed and filtered to remove LiDAR points on elevated features such as vegetation, buildings, cars, etc. in order to create a bare earth surface meeting the accuracies required for orthophoto and contour generation. (Citation: LiDAR) - 2013-09-25 00:00:00 - The NOAA Office for Coastal Management received topographic files in zipped LAS files. The files contained lidar elevation and intensity measurements. The data were received in 24 blocks, 12 each for northern and southern blocks. The LAS files were in Pennsylvania North State Plane coordinates, zone 3701, NAD83 orthographic coordinates. The vertical units of the data were feet. OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The topographic las files were cleaned of bad elevations above 3300 and below 200 ft. 2. The classifications were reclassed to

properly fit the Digital Coast classifications. Class 1 - unclassified, Class 2 - ground, Class 3 - low veg, Class 4 - med veg, Class 5 - high veg, Class 6 - building, Class 7 - low point (noise), Class 8 - Model Key-point (mass point), Class 9 - Water, Class 10 - merged original classes 15/16 (road edges) 3. The topographic las files were converted from orthometric (NAVD88) heights to ellipsoidal heights using Geoid03. 4. The topographic las files were converted from a Projected Coordinate System (PA SP North) to a Geographic Coordinate system (NAD83). 5. The topographic las files' vertical units were converted from feet to meters. 6. The topographic las files' horizontal units were converted from feet to decimal degrees.

# 5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

#### 5.2. Quality control procedures employed (describe or provide URL of description):

#### 6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

# 6.1. Does metadata comply with EDMC Data Documentation directive?

No

# 6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

# 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

# 6.2.1. If service is needed for metadata hosting, please indicate:

#### 6.3. URL of metadata folder or data catalog, if known:

https://www.fisheries.noaa.gov/inport/item/49950

# 6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\_PD-Data Documentation v1.pdf

# 7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

#### 7.1. Do these data comply with the Data Access directive?

# 7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

# 7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

# 7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

#### 7.2.1. If data hosting service is needed, please indicate:

#### 7.2.2. URL of data access service, if known:

https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=2573 https://coast.noaa.gov/htdata/lidar1 z/geoid18/data/2573

#### 7.3. Data access methods or services offered:

This data can be obtained on-line at the following URL:

https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=2573

;

# 7.4. Approximate delay between data collection and dissemination:

# 7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

#### 8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

# 8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

- 8.1.1. If World Data Center or Other, specify:
- 8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:
- **8.2. Data storage facility prior to being sent to an archive facility (if any):**Office for Coastal Management Charleston, SC
- 8.3. Approximate delay between data collection and submission to an archive facility:
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

# 9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.